

## CUSTOMER SUCCESS STORY



At BASF, we don't make the PolySteel® forms for wall construction. We make them more energy efficient.

**Customer:** American PolySteel, LLC, Albuquerque, N.M.

**End-Use:** PolySteel® and PolyPro™ insulating concrete forms (ICFs) used to build structural walls for residential and commercial buildings

**Product:** Styropor® expandable polystyrene (EPS) resin to produce foam

**CHALLENGE:** Temperature fluctuation is a common occurrence in wood-frame exterior walls, which can cause heating and cooling bills to rise. In addition, air leakage or infiltration can account for 20 to 40 percent of the heat load requirements of a wood-framed building.

“Besides location, most people purchase homes the same way as they would buy a car – basing their decision on how much they can afford to pay each month,” said Patrick Murphy, President of American PolySteel. “But they often don't factor in how much they'll need to pay in utilities to heat and cool their homes, because they're more concerned about the more visible fixtures and features inside the house instead of what is used in the walls and ceilings for insulation.”

**SOLUTION:** The patent-pending PolySteel and PolyPro ICFs consist of two EPS foam panels made from BASF's Styropor resin molded together with steel or polypropylene form ties, which have integrated furring strips. These forming units are stacked together to form a wall. Concrete is then placed to fill the area in between the panels to create a solid concrete wall system, providing superior structural and thermal insulation. The furring strips are recessed one-half inch below the wall surface and enable drywall stucco lath, brick ties or siding to be mechanically attached directly to the insulated concrete wall.

### BENEFITS:

- Lower utility bills, saving homeowners approximately 50 to 80 percent on energy costs and about 15 to 25 percent on insurance premiums.
- Superior comfort, peace and quiet.
- Longer lasting homes and buildings.
- Reduced air leakage or infiltration that can diminish thermal stability by 75 percent.
- Stronger protection from natural disasters and fire that is significantly better than conventional construction methods.
- Supporting a more sustainable environment.

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